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**REMARKS**

Applicants appreciate the Examiner's thorough examination of the subject application and request reconsideration of the subject application based on the foregoing amendments and the following remarks. Applicants also acknowledge with thanks the recent personal interview with the Examiner regarding the claim rejections and the cited art.

Claims 34-38, 60-63 and 73-100 are pending in the subject application. Claims 1-33, 39-59 and 64-72 were previously canceled.

Claims 34-38, 60-63 and 73-100 stand rejected under 35 U.S.C. §102 and/or on grounds of non-statutory/obviousness type double patenting.

Claims 34, 36, 38, 80, 91, 93 and 95 were amended for clarity and to more distinctly claim the inventions of the subject application.

The specification was amended to address the objection directed to the Abstract.

The amendments to the claims and specification do not introduce new matter, and thus entry of same into the subject application is respectfully requested.

**35 U.S.C. §102 REJECTIONS**

The Examiner rejected claims 34-38, 60-63 and 73-100 under 35 U.S.C. §102(b) as being anticipated by Lumb [USP 3,426,364]. Applicants respectfully traverse. Because claims were amended in the instant amendment, the following discussion refers to the language of the amended claims. However, only those amended features specifically relied upon to distinguish the claimed invention from the cited prior art shall be considered as being made to overcome the cited reference. The following addresses different groupings of the claims.

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### **Claims 34-38 & 73-100**

Lumb describes a prosthetic appliance for replacing one or more vertebrae. Such a prosthetic device includes a y-shaped element 12 that replaces a vertebrae and thus is disposed between two other vertebrae that are adjacent to ends of the y-shaped element. Arches 54 are secured to the y-shaped element and to the two other vertebrae. The arches 54 are secured to the other adjacent vertebrae by means of screws 50. Further, and as shown in the figures of Lumb, the arches are external to the surfaces of the vertebrae and are not disposed in channels or apertures formed in adjacent vertebrae.

It appears that the Office Action is asserting that element 50 in Lumb corresponds to a part of the arcuate implant and that there is nothing in the claims that preclude the interpretation that the arcuate implant. While Applicants respectfully disagree with this assertion, in the interests of advancing prosecution Applicants have amended claim 34 to provide that the arcuate implant member extends in the same plane between the adjacent vertebrae and so that it is clear that it is portions of the arcuate implant member that are disposed in the apertures. The other independent claims were at least amended so as to provide that the arcuate implant member extends in the same plane between the adjacent vertebrae. In addition, some of these other independent claims were amended so that it is clear that it is portions of the arcuate implant member that are disposed in the apertures (*e.g.*, see claims 36, 38, 80).

In view of such amendments, Applicants respectfully submit that this structure is different from that described for the prosthetic device in Lumb. Applicants also submit that there is no disclosure in Lumb suggesting an arrangement or structure as set forth in the claims; and further that if the structure in Lumb was modified so as to form an implant member of any of the present inventions, the resultant device would be incapable of carrying out the intended function or purpose of the prosthetic device described in Lumb.

Certain of the method claims of the present invention (claims 80-90) are directed to stabilizing adjacent segments of a mammalian bone. This is not disclosed or taught anywhere in

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Lumb as the disclosure in Lumb is directed to the spine and in particular the replacement of a natural vertebrae. While the spine is part of the skeletal structure of a mammal, the disclosure in Lumb is so confined to the spine and elements of the spine, one could hardly assert that Lumb explicitly or inherently describes a technique for stabilizing bones in general.

There also is no disclosure anywhere in Lumb of rotating an arcuate member of a size sufficient to extend in a plane between the two adjacent vertebrate from a first position to a second position such as provided in claims 95-99 of the present invention. Such a concept is completely different from that described in Lumb, which describes replacing a natural vertebrae with a prosthetic device and coupling metal braces 46 or bridges to the prosthetic and to the adjacent vertebrae by screws 50 as described above. Such a configuration of prosthetic device and arches/bridges essentially precludes rotating the bridges/arches from a first position to a second position.

In view of the foregoing, it is clear that Lumb does not describe or disclose the various inventions of the present invention. It also is respectfully submitted that there also is no teaching or suggestion in Lumb for modifying the device, systems and methods described therein so as to yield the method, devices, kits and systems as set forth in the claims. Moreover, any such a modification would necessarily destroy the intended purpose and function and devices described in Lumb as well as changing the intended manner by which such devices and systems would operate.

It is respectfully submitted that claims 34-38 and 73-100 are patentable over the cited reference for the foregoing reasons.

### **Claims 60-63**

The method as set forth in claims 60-63 is directed to cutting a common channel in the adjacent vertebrae (*i.e.*, in both vertebrae) using a rotating element and inserting an implant in this channel. As also set forth in the claims, the rotating element includes a midpoint that is

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located between the adjacent vertebrae (*i.e.*, pointing at the intervertebral space) to cut the common channel. This is not disclosed or taught anywhere in Lumb nor could it be (*e.g.*, the device drilling holes in vertebrae to received screws 50, is pointed at vertebral body).

It is respectfully submitted that claims 60-63 are patentable over the cited reference for the foregoing reasons.

The following additional remarks shall apply to each of the above.

As provided in MPEP-2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Or stated another way, "The identical invention must be shown in as complete detail as is contained in the ... claims. *Richardson v Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ 2d. 1913, 1920 (Fed. Cir. 1989). Although identify of terminology is not required, the elements must be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990). It is clear from the foregoing remarks that the above identified claims are not anticipated by Lumb.

It is respectfully submitted that for the foregoing reasons, claims 34-38, 60-63 and 73-100 are patentable over the cited reference and thus, satisfy the requirements of 35 U.S.C. §102(b). As such, these claims are allowable.

**NON-STATUTORY/OBVIOUSNESS DOUBEL PATENTING REJECTION(S)**

Claims 34-38 and 73-90 stand rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1-61 of U.S. Patent No. 6,607,530.

Applicants will submit a terminal disclaimer signed by applicants or a registered attorney of record that is compliance with 37 C.F.R. §§1.321(b) and 1.321 (c) after indication that all of the

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pending claims are in an allowable condition or upon request of the Examiner if there are no other issues barring allowance of the claims.

SEPCIFICATION OBJECTIONS

The Examiner objected to the specification of the subject application (*i.e.*, the ABSTRACT) and requested correction thereof. The following addresses the specific objections of the Examiner.

The ABSTRACT was amended in the instant amendment as suggested by the Examiner to eliminate the use of the word “new” therein. As such, the ABSTRACT, as amended, is considered acceptable. In addition, Applicants have enclosed herewith the so-amended Abstract on a separate page/sheet.

It is respectfully submitted that for the foregoing reasons, the specification satisfies applicable Patent laws and rules and, therefore is considered acceptable.

It is respectfully submitted that the subject application is in a condition for allowance. Early and favorable action is requested.

Although claims are being added, Applicants believe that additional fees are not required for consideration of the within Response. However, if for any reason a fee is required, a fee paid

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is inadequate or credit is owed for any excess fee paid, the Commissioner is hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,  
Edwards Angell Palmer & Dodge , LLP

/William J. Daley, Jr. /

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